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Analysis of Export Efforts of Lampung Coffee Using a Multicriteria Decision Making Approach

Indri Arrafi Juliannisa¹, Jubaedah², Praptiningsih³ and Sugianto⁴

Abstract

Lampung coffee is a renowned Indonesian coffee bean known for its unique flavor profile. This study aims to analyze and evaluate potential export strategies for Lampung coffee using a multicriteria decision-making (MCDM) approach. The research will identify key factors influencing the success of Lampung coffee exports. These factors might include production costs, quality control standards, market access, marketing strategies, logistics efficiency, and government regulations. MCDM techniques will then be employed to assess various export options based on the identified factors. This will allow for a comprehensive analysis that considers the trade-offs between different criteria. The expected outcome of this study is a well-defined and prioritized set of strategies to enhance the export performance of Lampung coffee. The findings can be valuable for coffee producers, exporters, policymakers, and other stakeholders involved in the Lampung coffee industry. Based on the MCDM result, factors impacting production coffee include that farmers lack sufficient skills in coffee plantation management (education), weather and supply chain.

Keywords: Lampung Coffee, Export Strategies, Multicriteria Decision Making, Export Performance.

INTRODUCTION

Indonesia has thousands of coffee plants, in fact Indonesia is in 4th position in the world as a coffee exporting country, after Brazil, Vietnam and Honduras (Laksono et al., 2022). Coffee is a product of Indonesian pride that is worldwide. From 1.2 million hectares of land, Indonesia's coffee production capacity reaches 765 thousand tons of Arabica, Robusta and Liberica types, including specialty coffee (Marcone, 2005). Indonesia is the third coffee supplier in Thailand, after Vietnam and Laos. The volume of Indonesian coffee exports to Thailand in January - October 2022 is 4,690 tons, an increase of 58% compared to last year (Novita et al, 2018). The coffee shop business in Indonesia began to flourish in the 2010s. Various coffee businesses have sprung up, ranging from takeaway packaged coffee shops with Instagramable concepts to processed coffee with boba (Suhandy et al, 2023).

Unconsciously, coffee drinks have become a lifestyle for several groups, from high school students to office workers who are very fond of coffee drinks (Suhandy et al, 2023). Due to the large number of coffee drink enthusiasts, MSMEs are starting to develop and sell coffee products in powders and packaged drinks (Suhandy et al, 2023). Nowadays, coffee drinks are no longer just for consumption, but coffee drinks can complement daily activities such as doing assignments, meetings, reunions of old friends, and others (Wang and Olsen, 2002). However, running a coffee business for MSME players is challenging; many challenges are faced in maintaining sales consistency and having strength in products (Li et al, 2021).

Lampung Province is recognized as an area with great potential for developing the agricultural sector; some of the commodities produced in this area are export commodities, one of which is coffee exports.

 No.
 Data Name
 2020
 2021

 1
 Lampung
 367
 400,6

 2
 North Sumatra
 221,8
 204,1

Table 1. The Five Largest Coffee-Exporting Provinces in Indonesia(ton)

¹ UPN Veteran Jakarta, Indonesia, Email: indri.arrafi@upnvj.ac.id

² UPN Veteran Jakarta, Indonesia, Email: jubaedah@upnvj.ac.id

³ UPN Veteran Jakarta, Indonesia, Email: praptiningsih@upnvj.ac.id

⁴ UPN Veteran Jakarta, Indonesia, Email: sugianto@upnvj.ac.id

3	East Java	103,4	133
4	Aceh	81,9	71,7
5	Central Java	14,4	19,5

Source: (BPS, 2021)

Lampung is the first province in terms of coffee exporters. Lampung coffee products are attractive in various countries, such as China, the United States, Italy, Japan, Pakistan, South Korea, the Netherlands, the Philippines, India, Thailand and Spain (BPS, 2021). Lampung coffee has entered several cafes in Japan, Thailand, and India, and we can order and mention the type of Lampung coffee directly to the cafe owner. Within Indonesia, Lampung coffee is also sent to several regions, such as Java, Sulawesi and Kalimantan (BPS, Lampung, 2021). The increasing number of coffee lovers strongly supports the high level of exports. Until 2022, as many as 79% of Indonesia's population are interested in drinking coffee, so the demand for Lampung coffee is increasing.

Coffee entrepreneurs generally compete to find out what is currently busy in the market and are the target of consumers (Bagheri et al. (2019); Gowda et al. (2021); Tama et al. (2021)). The coffee business is part of the food and beverage business, so many risks are involved, from the selection of coffee beans, packaging, and marketing coffee flavors that must be unique (Mohr and Kühl, 2021). Coffee entrepreneurs strive to innovate in making their signature coffee recipes. In addition, prices that are competitive with competitors are also a concern. With many competitors in the same business field, there are fewer opportunities to seize the market. Their business will fail if they are slow to innovate and lack competitive pricing power (Nugroho, 2014).

The government's support for coffee exports has been good so far, easing export requirements stipulated in Minister of Trade Regulation No. 10/2011 concerning coffee export provisions. One of the concessions specified in the latest regulation is that exporters no longer need to attach proof of payment of the Indonesian Coffee Exporters Association (AEKI) membership dues to obtain an export license as in previous years. The primary purpose of this policy is to relax export requirements so that coffee farmers can export coffee directly without going through traders. Small exporters are expected to grow among the farmers to increase coffee exports (Tozlovanu and Pfohl-Leszkowicz, 2021).

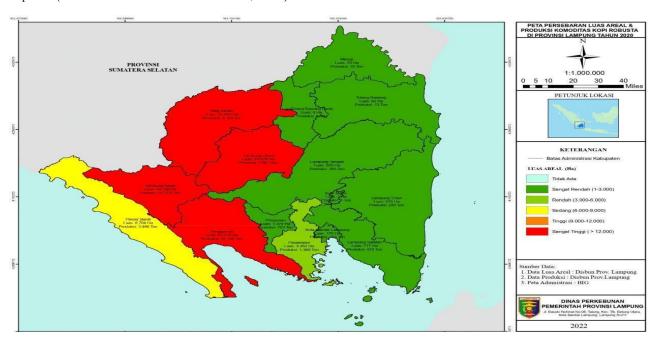


Figure 1. Coffee Producing Areas in Lampung Province

Source: Lampung Plantations Service Office, 2022

It can be seen from Figure 1 that the districts with the highest coffee production in Lampung are West Lampung, Tanggamus, North Lampung, and Way Kanan. These regions are the main contributors to Lampung's coffee export value. Despite being Indonesia's largest coffee supplier, Lampung Coffee has experienced ups and downs. In fact, the decline in Lampung coffee production has continued to occur in recent years.

The obstacle is the farmers' knowledge; when farmers lack information, innovation, and technology for management, the quality of the coffee beans produced is horrible. The lack of skills of coffee farmers in Indonesia often causes the quality of Indonesian coffee to be low. As a result, farmers have difficulty selling coffee in the international market, which can also impact the success of coffee exports. The quality of coffee that comes from farmers' processing must be maintained. When there are insect problems, climate change, and fertilizer shortages, it dramatically affects the quantity of production and can reduce the number of coffee exports (Nugroho, 2014).

The cost of processing and access to land owned also constrains farmers. In general, farmers have capital by accessing capital or bank credit, and the status of plantation ownership is still leased by other parties, causing the selling price of coffee to become more expensive (FAO, 2005).

LITERATURE REVIEW

Adam Smith introduced the theory of international trade with his theory of absolute advantage. The theory of absolute advantage states that if a country is more efficient than other countries in producing a commodity (this commodity is called absolute advantage) but no more efficient in producing other commodities than other countries (absolute disadvantage), then both countries can benefit from trade by specializing in producing and trade commodities that have absolute advantage (Salvatore, 2019). In refining the theory of absolute advantage, David Ricardo introduced the theory of comparative advantage. Comparative advantage assumes that trade flows result from differences in production costs between countries with lower investment requirements to produce certain goods and higher productivity (Latruffe, 2010).

The theory of comparative advantage explains that in a free trade situation if a country is less efficient than another country in producing both goods, it is still possible for both countries to conduct trade that can benefit both parties. The first country must specialize in producing commodities with a smaller absolute disadvantage; this commodity is called comparative advantage. In addition, the country must also import commodities whose absolute disadvantage is more significant; this commodity is referred to as comparative disadvantage. Ricardo proved that if two trading regions concentrate on exporting goods with comparative advantage, both regions will benefit (Salvatore, (2019); Tarigan, (2004)).

Method

This study uses a quantitative approach, which is utilized to examine the objective theory and the relationship between variables in a study (Creswell and Creswell, (2017)). We used the quantitative approach to identify things that can affect the success of Lampung coffee exports. Through the multi-criteria decision-making method, it can be seen what variables have a direct effect that can make Lampung coffee exports successful. Quantitative methods require primary data from deep interviews with Lampung coffee farmers (Siswantini et al, 2022)

The number of samples in this study is 399 samples, which is calculated using the Slovin Formula below:

 $n= 142.511 / (1 + (142.511 \times 0.05^2)) = 399$

n: minimum number of samples

N: 142.511 (Population)

1: Constant

e: 0.05 (error/fault tolerance)

Duperrin and Michel Godet first developed the MICMAC analysis method in 1973. The desire to systematically rank the elements of a system is the main reason for the development of this method (Fauzi, 2019). MICMAC analysis is an analysis used to categorize or group a factor based on the value of its influence and dependence (Godet & Bourse, 2004). MICMAC analysis can also capture interactions between variables and identify key variables that can be used as system drivers to work sustainably. By using the MICMAC analysis method, researchers can identify inter-variable relationships that may arise directly between one variable and another or because the intermediate variable that connects the two variables can be found (Fauzi, 2019). MICMAC begins by formulating a problem (problem definition) so that both internal and external research variables can be identified. Analyzing the relationship between variables can then be conducted to evaluate the relationship based on the impact and dependency of the evaluation process (questionnaire), usually carried out by experts or stakeholders through in-depth interviews (Annisa et al., 2022).

Experts or stakeholders who are directly involved can provide an assessment by filling out a survey tool in the form of a questionnaire contained in the assessment matrix by entering a score from 0 to 3. The matrix representation used looks like Figure 2.

Towards From	A	В	С	D	Е	F
A						
В						
С						
D						
E						
F						

Figure 2. Illustration of the MICMAC Assessment Matrix

After the data is identified and evaluated, a process calculates the influence and dependency between variables, thereby determining the ranking of each variable. To summarize the computational flow of the MICMAC analysis, it can be assumed that the relationship between variables is described by a Boolean matrix, as shown in Figure 3.

To Influence from	A	В	С	D	Е
A	0	0	0	1	0
В	1	0	3	1	0
С	1	0	0	2	0
D	0	0	0	0	1
E	1	0	0	0	0

Figure 3. Inter-variable Relationship Matrix

Description: Influence 0 = None, 1 = Weak, 2 = Average, 3 = Strong, P = Potential

In terms of operation, MICMAC Software is divided into three stages: defining the problem, identifying internal and external variables; assessing the relationship between variables according to the level of influence and dependency, which is assessed on a rating scale between 0 = none; 1 = weak; 2 = average; 3 = strong; P = potential, and analyzing the intensity of influence and dependency of variables determined by the location of variables on the quadrant map of variable influence and dependency. The MICMAC analysis in the Matrix of Direct Influence (MDI) arranges the variables to determine each variable's intensity of influence. MDI is the fundamental matrix for compiling the Matrix of Indirect Influence (MII), which shows the intensity of the indirect influence of variables, and the Matrix Potential of Direct Influence (MPDI), which projects the intensity of the influence of variables in the event of system changes at a later time. The variables generated by this method are classified into four types: i.e. determinant variables that have a high level of influence and low

dependence, relay variables that have a high level of dependence and a high level of influence with other variables, autonomous variables that have a low level of influence and dependence with different variables, and output variables that have a low influence and a high level of dependence with other variables. The four variables will be loaded into a map or image, making it easier to analyze the influence and dependence of system variables from this study (Fauzi, 2019).

Table 2. Type, Role, Status, and Implications of Variables

Types of Variables	Role and Status Variables	Implications
Influence Variables	Variables with high impact and low dependency	A critical variable because it is an essential factor in the system and research
Relay Variables	Influential, but highly dependent on other variables The variable description is unstable	This change in magnitude is a system instability that affects other magnitudes
Dependence Variables	Highly dependent and relatively influential on other variables	Highly sensitive to changes in predictor and relay variables
Autonomous (Excluded) Variables	Small influence and small dependency	There is a slight possibility of making changes to the system. The presence or absence of this variable is said to be excluded because it does not interfere with the system network, does not provide the system network, or does not benefit the system
Regulator V ariables	Average effect and average dependence	Act as levers for the system

Source: Fauzi (2019)

The figure below shows the mapping of the influence of variables:

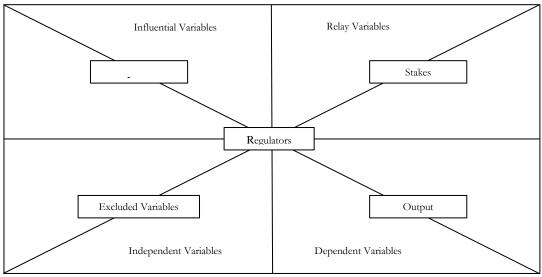


Figure 4. Illustration of MICMAC Analysis Results (Chatziioannou & Alvarez-Icaza, 2017; Godet, 1994)

Dependence

The operational variables used in this study are shown in the following table:

Table 3. Operational Variables

No	Variable	Sort Label	Long Label	No	Variable	Sort Label	Long Label
1	Price	Price	Selling price of coffee products	6	Government	Government support	Government policy for coffee exports
2	Land	Land	Land of coffee	7	Other area	Other area	Other areas own coffee land
3	Technology	Technology	Utilization of technology	8	Weather	Weather	Weather
4	Funding	Funding	Funding for farmers	9	Supply Chain	Supply Chain	Coffee sales supply chain
5	Middleman	Middleman	People who intermediary sell coffee from farmers to the market	10	Education	Education	Education of farmer

DISCUSSION

Before analyzing the direct factors determining Lampung coffee exports, a data validity test is carried out to prove that the data selection and variables are valid.

Table 4. Validity Test Results

Information	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Price	41,84	47,193	,648	,636	,882
Land	41,54	47,899	,678	,646	,881
Technology	41,47	49,460	,624	,583	,883
Funding	41,52	49,945	,527	,558	,888
Middlleman	41,48	48,714	,671	,695	,881
Goverment	41,50	51,132	,575	,527	,886
Other area	41,02	53,494	,465	,481	,890
Weather	41,84	51,039	,375	,355	,896
Supply chain	41,63	49,071	,563	,436	,886
Education	41,36	50,430	,593	,520	,885

Source: Data Processed, 2024

Table 3 shows the validity test results in the Corrected Item-Total Correlation column, referred to as r count. The overall value that appears in the column shows a different value. Apart from proving that the data is valid, the validity test has a hypothesis; if r count > r table, the data is valid. The value of the r table in this study is 0.250, obtained from the list of r tables with a df (degree of freedom) value or degree of freedom of 90, obtained from the number of respondents - 2 or df = N-2. The calculated r value in the Corrected Item-Total Correlation column in Table 10 shows that the value is greater than 0.2050 or r count > r table, so the entire instrument used as a measuring tool in this study is valid.

Furthermore, to see the accuracy of the instrument in this study, a reliability test was carried out with the following results:

Table 5. Reliability Test Results

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	
,893	,896	

Source: Data Processed, 2024

Based on Table 5, the reliability test results are indicated by the value in Cronbach's Alpha Based on Standardized Items column of 0.896. The instruments in this study are reliable or consistent because the value of Croanbach's alpha < Croanbach's alpha based on standardized items, which is 0.893 < 0.896.

The next step is to calculate the parameters that are useful to see the stability of the data to determine the intensity of the influence between key variables. Calculating parameters will produce a stable iteration value, which, in this study, produces a stable iteration value of 4. This value is used to see the stability of the data. The results obtained are as follows:

Table 6. Iteration, Influence, and Dependence Key Variables

ITERATION	Influence	DEPENDENCE		
1	77 %	92 %		
2	100 %	93 %		

Source: Data Processing by MICMAC Software, 2024

Based on Table 6, the data can be validly used at irreteracy level 2, with an influence level of 100% and a dependence of 93%.

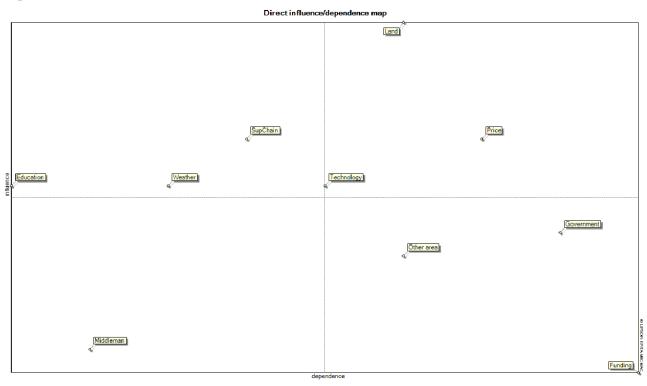


Figure 5. Result of Direct Influence/Dependence Map

Source: Data Processing by MICMAC Software, 2024

The variables under the influence are education, weather, and supply chain. These three variables have a strong influence on determining the value of coffee exports. Innovation has an important role that has a direct impact on capacity and output, so coffee companies need to be able to develop in various fields if they want to maintain their development and income in the short and long term (Nagy et al. (2016; Teece, (2018)). Export knowledge and capabilities are essential factors in competing in foreign markets. Two sources of knowledge that impact a company's export performance are knowledge of foreign markets and export procedures. Export procedures include shipping, customer needs and information, customer satisfaction, internal and external competitors, ICT, and related issues such as regulations. Therefore, knowledge can reduce transaction costs related to the movement of goods from firms to their customers, thereby improving export performance (G. Wang & Olsen, 2002).

Negeri and Ji (2023), explain that there is a positive and significant relationship between knowledge and coffee export performance. Knowledge has a vital role in developing export strategies. Exporting producers with sufficient knowledge can implement product innovation and adaptation to generate more significant revenue

and sales and increase customer satisfaction. By implementing adaptations to coffee products, producers can quickly improve export performance. Therefore, companies with knowledge accompanied by product innovation and adaptation will be better able to compete globally and earn greater returns from their export efforts.

The supply chain is a factor that affects how the export stage can occur. However, there are problems in the coffee supply chain, causing an increase in beverage prices and a decrease in sales and profits for producers. The increasing global crisis has made it more expensive and difficult to ship coffee to destination countries. The effects of the COVID-19 pandemic hurt the internal logistics network and export infrastructure due to the inability of shipping containers, which hampered the entire transportation market and caused contract delays at the start of the pandemic. The disruption in shipping and production capabilities had a ripple effect on the decline in exports. Agricultural producers are the most directly affected by transportation disruptions (Bloomberg, 2021; Chen et al., 2022).

Green coffee exports from the world's largest coffee producer, Brazil, dropped by 27% in August 2021 due to increasing problems finding containers for shipment. Daily necessities have soared during the pandemic, and the number of cargo ship transports has highly increased as the demand for ships sailing to major ports with conflicting schedules has caused difficulties in the flow of cargo. Transportation bottlenecks occurred along with the difficulty of delivering orders on time. According to a survey, 3.5 million bags of coffee could not be transported as scheduled that year due to transportation problems, costing the country's coffee export business \$500 million (Chen et al., 2022).

In addition to the long supply chain, a factor that affects production and impacts coffee exports is the weather. Extreme weather and natural disasters impact coffee production. In 2021, there was the worst drought and frost in decades. These conditions damaged 1.5 million km2 of farmland and nearly 600 million kg of coffee beans. Agriculture, especially coffee cultivation, is sensitive to adverse weather and climate change because it disrupts the coffee phenology process. Extreme weather causes coffee beans to become more susceptible to diseases and pests, resulting in a major decline in coffee production and exports. Brazil's coffee exports declined by 23.8% in the first month of the harvest season following the natural disaster. The lack of production and supply of coffee beans due to the extreme weather that was not effectively resolved caused coffee producers to increase coffee prices at different rates and made consumers have to bear higher prices with inconsistent quality of coffee beans (Chen et al., 2022; Davis, 2021; Salas López et al., 2020).

Technology, Land, and Price are relay variables that are influential but are strongly influenced by other variables, both included and not included in this assessment. Research by Salengke et al. (2019) proved that the utilization of technology in the coffee processing process, especially in the fermentation stage, is consistently able to produce coffee beans with high quality. The results explained that the application of technology in this fermentation can increase production with better quality coffee bean flavor. Technology plays an important role in increasing coffee production for coffee farmers. Farmers who get additional new technology used on their land can improve the quality of their coffee beans. In addition, the use of technology has increased coffee production and productivity for export to various countries in the world (Sedana & Astawa, 2019).

Land in coffee farming greatly determines the number of export production, and the level of land productivity determines coffee production, where declining land productivity has an impact on the yield of plants that grow on the land will not be maximized (Fisabilillah & Kinasih, 2023). For maximum growth, coffee requires favorable land conditions with good soil fertility. Farmers still have serious challenges in land management, which can be seen from the declining level of soil fertility due to degradation and poor land management and coffee cultivation practices. In addition, non-land factors are also a problem where the provision of agricultural tools and machinery, such as cultivars and production facilities of high-quality fertilizers and seeds are still limited. Massive pest and disease infestations, improper handling, and high rainfall can disrupt coffee plant growth. These are the problems that cause coffee productivity to decrease every year (Irawan et al., 2022; Rico et al., 2021).

Besides technology and land, coffee prices are determined by the quantity of coffee production and other coffee substitutes. Hasanah & Prasetyanto (2022) explained that world coffee prices have a significant influence on

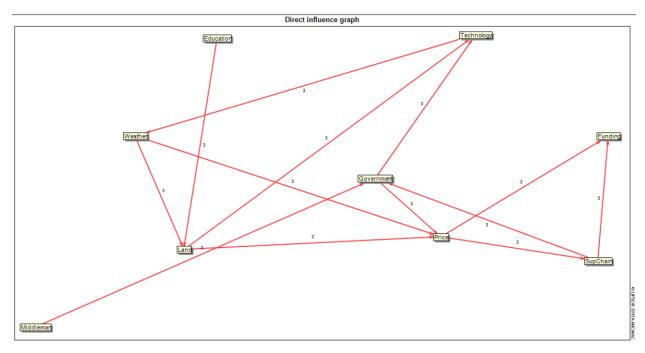
the quantity of coffee exports. The price is one of the indicators of a country's interest in buying an item. The price of the item itself influences the demand for an item. When the price of an item in a country is cheap, other countries will increase demand for their exported goods. Inversely, when the price of a good rises, other countries will reduce their export demand with the assumption of ceteris paribus.

According to Kabayiza et al. (2021), the increase in coffee prices in the long and short term is influenced by exchange rate volatility. Exchange rate volatility causes a decrease in coffee export volume in the long run. A review of monetary policy through currency stabilization is necessary to stabilize the exchange rate and avoid its adverse impact on coffee prices and export volumes.

Government and other areas are classified as dependent variables, which means that they are highly dependent and relatively have an influence on other variables. The government allocates resources to encourage exports as part of the international economy through Export Promotion Programs (EPP). EPP includes the provision of export-related information, export marketing education and training assistance, export product development, export and import management, and export promotion and communication. Through the EPP, the government attempts to improve the resources and capabilities of firms to make their marketing strategies more effective and increase competitiveness so that export performance will improve. Moreover, EPP is expected to maximize the potential of MSMEs in promoting economic growth and income equality through exports by assisting firms in overcoming export barriers (Heriqbaldi et al., 2023).

In early 2022, Indonesia was threatened with losing the coffee export market in Japan since the government rejected Indonesian coffee exports due to the detection of isoprocarb chemical content in Indonesian coffee, especially robusta lampung, which exceeded the limit of 0.01 ppm in September 2021. The Japanese government plans to change the formulation to replace Indonesian coffee with Vietnamese coffee. In dealing with these conditions, the government took several actions, as follows:1)GAEKI Chairman, Hutama Sugandhi said that the quarantine and provincial agencies are taking corrective action in counseling coffee farmers to prevent the use of sporocarp as an ant-repellent pesticide, but this is a medium- and long-term effort that will take a long time.2) The Head of the West Lampung Plantation and Livestock Service Office, Yudha Setiawan, conducted several programs to minimize the use of pesticides for coffee plants so that their use in eradicating insects on coffee fruit is in accordance with the dosage. 3)In helping to increase coffee production, the Lampung Provincial Government has intervened by grafting 50 hectares of coffee stems and providing guidance to farmers to improve the quality of coffee for sale in the market (satunews, 2022; RRI, 2023).

Middleman is classified as a variable with a small influence and small dependence, in this case proving that middlemen are not a big barrier, because Lampung coffee farmers really strive not to use middlemen who cut large profits.



Source: Data Processing by MICMAC Software, 2024

Figure 6. Result of Direct Influence/Dependence Graph

Each variable has a direct impact on the other, such as prices are strongly influenced by government policies, weather, and land conditions. When the government issues policies that make it easier for farmers to sell coffee and provide adequate fertilizer subsidies, the selling price will also be stable, and farmers' profits can increase. When the weather and land conditions are bad, the volume of production drops. In this case, decreased supply and increased demand will trigger a price increase.



Figure 7. List of variable sorted by influence

Source: Data Processing by MICMAC Software, 2024

The results show the list of variables that have the greatest direct impact on Lampung coffee exports, which are: Land, Price, Supply Chain, Technology, Weather, Education, Government, Other Areas, Middle Man, and Funding.

DISCUSSION

One of the reasons for the decrease in production is due to farmers' lack of mastery of coffee plantation management technology and the fact that coffee plantations are now decreasing. In West Lampung, some coffee farmers are replacing their plantations with cabbage plants in the Sekincau District. Weather factors have also contributed to the decline in coffee production. In addition to these factors, the low volume of Lampung coffee exports each month has recently been influenced by several things. First, the local price of coffee is higher than the world market price. The export market price of coffee is determined by buyers in world markets such as Robusta on the London coffee exchange and Arabic on the New York coffee exchange. The second is due to diminishing coffee production. Many coffee farmers complain about the high cost of managing coffee plantations. Many farmers have difficulty buying fertilizer. Therefore, encouragement from the government is needed, such as the availability of subsidized fertilizers for coffee because currently, there are only fertilizers for crops, not for plantation/coffee crops. Third, local exporters have been using domestic bank capital instead of foreign exporters, who use dollar capital because of high prices.

The harvest of some coffee farmers in Lampung has declined in recent years. Per hectare of coffee plantation can only produce around 7-9 quintals or less than one ton. Whereas, in the past, per coffee plantation could produce more than 2 tons. In addition, during the harvest season, selling prices tend to fall. The price of raw coffee beans at the farm level is around Rp 18,000 per kilogram. Whereas, the price was above Rp 23,000/kg previously.

Not only people in Indonesia are interested in coffee drinks, but Thai people are one of the countries that have many coffee enthusiasts. But unfortunately, its coffee plant products have not become the largest export commodity like in Indonesia. Coffee MSME players in Thailand are trying to sell or brand their coffee products by requiring each local Thai coffee cafe to sell coffee originating from their own country. However, it does not rule out the possibility of receiving coffee from other countries. (8) One of the coffee bean products in Thailand is coffee beans from Indonesia. There are 65% of Thai people who are interested in drinking coffee from Indonesia.

It is not easy for coffee entrepreneurs to brand their products and select coffee beans until the roasting process of the coffee beans is completed. Coffee entrepreneurs must adjust the level of maturity and enjoyment of aroma. According to the opinion of one of the coffee entrepreneurs in Thailand, the owner of the cafe "Chibichibi café and atelier" which is an MSME fostered partner of the UPN Veteran Jakarta lecturers, said that the level of Sumatra coffee roasting is at a fairly difficult level. Still, it does not rule out the possibility that coffee lovers from Indonesia are very large. When a coffee taste test was conducted, 78% of Thai people liked Sumatran-flavored coffee from Indonesia.

One of the coffee entrepreneurs in the Sumatra region who is assisted by MSMEs by UPNVJ campus lecturers, the entrepreneur "berdesinasi kopi" argues that the selection of coffee beans is not an easy thing. Consistency and knowledge of farmers must always be updated so the quality of coffee is maintained. Other instant coffee competitors who already have a global name are also a standard branding image and measurement of success in coffee management.

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